

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1-162. (Cancelled).

163. (New) A method for forming an array of single-wall carbon nanotubes comprising:

- (a) providing a material comprising single-wall carbon nanotubes, wherein the material has a surface; and
- (b) applying an electric field to the surface to form an array comprising the single-wall carbon nanotubes on the surface.

164. (New) The method of claim 163 further comprising subjecting the surface to oxidizing conditions sufficient to cause the single-wall carbon nanotubes to protrude from the surface, and wherein the electric field aligns the single-wall carbon nanotubes in an orientation generally perpendicular to the surface.

165. (New) The method of claim 164 further comprising coalescing the single-wall carbon nanotubes.

166. (New) The method of claim 164 wherein the oxidizing conditions comprise a chemical oxidation.

167. (New) The method of claim 164 comprising heating the surface to a temperature up to about 500°C in an atmosphere comprising a gas selected from the group consisting of oxygen, CO<sub>2</sub> and combinations thereof.

168. (New) A method for forming an array of single-wall carbon nanotubes comprising combing a mat wherein the mat comprises single-wall carbon nanotubes with a mechanical device.

169. (New) The method of claim 168 wherein the mechanical device comprises a tip of a scanning probe microscope.

170. (New) A method for forming a macroscopic molecular array of tubular carbon molecules comprising:

- (a) providing a surface comprising purified single-wall carbon nanotube material;
- (b) subjecting the surface to oxidizing conditions sufficient to cause short lengths of broken single-wall carbon nanotubes to protrude from the surface; and
- (c) applying an electric field to the surface to cause the single-wall carbon nanotubes to align in an orientation generally perpendicular to the surface and coalesce into an array.

171. (New) The method of claim 170 wherein the oxidizing conditions comprise heating the surface up to about 500°C in an atmosphere of oxygen and CO<sub>2</sub>.